



INTERVIEW WITH

A POLLINARY ZAKHAROV

R Our guest is Apollinariy Zakharov. The artist, animator, designer, a man with 20 years of experience in the industry, he has been doing post-production in movies for the last 10 years, he worked with Bekmambetov, Khotinenko, Bodrov, participated in the creation of 30 films and many music clips. In this interview, we will talk about Poll's work in the US and Russia, the problems of the CG industry, the peculiarities of working abroad and learn his views on how the industry is structured on both sides of the ocean.

HELLO POLL, TELL A BIT ABOUT YOURSELF, WHERE YOU BORN, STUDIED, WORKED AND WHERE DO YOU LIVE NOW?

I was born in Vitebsk. Our PE teacher was a member of the Belarus Basketball National Team. He wanted to make Michael Jordan out of everyone, so I did the homework in the pool or on the football field. I also went to the music school and was a vocalist of the local hard rock bands 'Master' and 'Parity', and at the age of 17, I was a chorister in the Russian Orthodox Church. But already at school, I was engaged by programming in MS-DOS and entering the programming faculty in the Polytechnic College, so after it's graduation, taking the Belarusian National Technical University was pretty logical.

During the senior years of the university, I realized that I do not want to do programming. I tried to mix programming and computer graphics. Just released software Flash, which allowed to control graphics and animation through the built-in language Action Script. Thus, there was a professional turn around from structural algorithms to fine arts. Creating casual games,



R 3D modeling, drawing textures, illustrations and web-design gradually completely supplanted programming from my life, although subsequently, technical skills and academic base played a key role more than once and gave me an advantage among competitors.

I've been moving from city to city all my life, working in Minsk, Vitebsk, in different cities of Russia and the USA. By the way, in the early 2000s I did 3D modeling and animation at Render.ru in St. Petersburg, I did graphics for Spell Force 2 and for the slot machines of Atronic Games. The last 10 years I have been doing post-production for movies. I worked with A.Herman Jr., T.Bekmambetov, V.Khotinenko, S.Bodrov Sr., participated in the creation of 30 films and many clips.

YOU LIVED IN THE USA (CALIFORNIA) FOR THREE YEARS, THIS IS A QUITE LONG TIME TO FEEL LIFE AND CG INDUSTRY

OF THE COUNTRY, TELL YOUR EXPERIENCE? INTERESTING NOT ONLY PROFESSIONAL BUT YOUR EVERYDAY EXPERIENCE, HOW COMFORTABLE IS THE LIFE OF A CG SPECIALIST? WHAT DO YOU YOU LIKE? WHAT DO NOT?

I think it's important to have different experiences. When I flew there for the first time, I knew about the US just from TV. But now I have work experience as a full-time job and a freelance work in various companies in different cities. I understand how organized the work in big and small companies. I understand how it is sitting at home to catch projects or how it is to work for a week in one studio, then ten days in another studio, then a month in the third one. I worked in start-ups and saw how a small project was developed into a big company and how it is absorbed by a larger company.



R When you realize what people do to develop their business, your own work and management experience become mature.

In the Invention Engine company, I supervised a small department of nine artists. And initially it was just two people, then four people, then the whole department was recruited, then other departments appeared. All that was growing, offices were changing. I was inside of the business development.

Working at Hasbro, I did advertising for the table game Monopoly. There is a character in a tall hat - Monopoly Man. We animated it for commercials on TV.

The next project was for Frog Design, it's a very famous design company which has many offices around the world. While I did post-production for advertisement a new product I saw the whole process from beginning to end. As designers developed the project, how it was transformed, how it was necessary to reconstruct something, and how the whole video was born by team efforts in ten days.

Later I did a commercial video in the Mustache Agency. And in a couple months, I was again took on board at Frog Design to create street informers. This is something similar to the phone booths in which you can see information about the city.

Once I worked on an application for the banking system, in which you can see your finances visually through some graphic locations and operate your money not digitally, but as animated icons. Interesting thing.

As for the organization of everyday life for employees, which American companies hired for work.

Before I started my job in San Francisco, I knew which house the company had rented for me. I did not have enough money to come with my family and I asked for an advance and I was given it. I could live in the house for a month and slowly look for another home for the next years. And the search for housing in America is not the same as in Russia. For example, I can not just come, pay money and live. I need to get recommendations, ask permission from Landlord. After he looks at my papers, credit history, look at my family he will be allowed to settle on the street, in the chosen house. This takes time.

When I flew out of San Francisco to another job, as a respectful attitude toward me, the company bought tickets for the whole family. To me, such care was amazing. As well, when we shoot and for example, the actress should participate in, she was also given tickets, accommodation, fed, transported and fully guarded. Or, when I was looking for the artist for my department, some of them were paid for the time of interviewing. So if an artist lives in Los Angeles and comes to the meeting to San Francisco, or even from Germany, or New Zealand, France, then he was paid for the air tickets plus accommodation and transfer.

A good specialist will always be paid additionally. I'm not talking about such things as having a refrigerator in the office full of juice, snacks, lunch, that every week the company pays for a lunch at a restaurant so that everyone can simply talk with each other, rest from work. In the US, very much concerns about the work relations inside the company, so there is a line in the budget for corporate entertainment even if it's a start-up. It's nice and very unusual.

Though I saw something like that in Belarus. Such practice existed in the early 2000s in Minsk in large companies. The tickets were not paid, but they paid for collective entertainment, restaurants and the offices had its own kitchen. This was in several companies involved in the software development and computer graphics. Although, I must admit that these companies were oriented to the West, in particular, to the US. Perhaps they had the American founders and did everything in the same way. And, I remember, something like that was in "Octavian International", here in St. Petersburg, when I was engaged in slot machines.

YOU ARE INCREDIBLE VERSATILE SPECIALIST, YOU HAVE SERIOUS EXPERIENCE IN COMPOSITING, YOUR PORTFOLIO DEMONSTRATES SUCH SPECIALTIES AS 3D GENERALIST, ANIMATOR, DESIGNER AND DIGITAL ARTIST. AS I KNOW YOU ALSO DO PROGRAMMING (IN CG), HOW DO YOU MATCH SUCCESSFULLY ALL THESE SPECIALTIES? HOW DOES IT POSSIBLE TO LEARN SO MANY ABSOLUTELY DIFFERENT PROFESSIONS?

I gradually tried everything, I was genuinely interested in everything. My hobbies became my work. Therefore, every time I was ready to make great efforts when I was a programmer, designer, studied character animation, 3D modeling or the principles of a digital cleanup. I needed to reach my personal maximum. I tried to find an opportunity to be creative in different areas.

Some people are good at drawing. They pay great attention to the details of the film or the game. And most importantly, they have time for it. I'm acting like a surgeon on a battlefield. If we have a limited amount of time and "a very bad injury" who needs everything at once - animation, graphics, and scripts, I can fix it so you'll be proud of it.

In any business, it is important to move from knowledge to action. A Kung-Fu Master does not think how to act, he just hits. I do exactly the same. I have already accumulated so many work methods that I can apply them everywhere. And very often I do extra work, so that everything



looks beautiful and professional. When you have a fast project, for example, commercial, you need to do everything: clean up, tint, trim, add, replace, design. And immediately many different methods come up, which I apply there or there. Why do I still work like that? Cause I'm still fascinated for everything! I still work in the field of "battlefield surgery" where I, as would Dota-gamers say, are a Super Support. Someone told me that in the field of computer graphics you Poll is a real ninja.

WE KNOW YOU WORKED

WITH BEKMAMBETOV, ALEXEY GERMAN JR., KHOTINENKO, BODROV, PARTICIPATED IN CREATION OF 30 FILMS AND MULTIPLE CLIPS, WHAT PROJECTS CAN YOU MARK AS THE MOST INTERESTING AND ACHIEVEMENT?

The most significant movies for me are Wanted, Mongol, The Irony Of Fate - Sequel, the cartoon Nosferatu - The Horror Of The Night. I was also influenced by music clips of Alexander Igudin and Oleg Gusev and a serial The Old Songs About The Main. There was the time when I worked on the New Year's TV Show every year on the Channel 1 or the Channel Russia. This work usually starts in November. Then, without leaving the studio, we had to make twenty clips and the action between them within two months. This required huge knowledge and individual skills. And until now I'm interested in such experience.

YOUR MOST UNIQUE PROJECT

I am one of the creators of OMGYes. This is a feminist project in San Francisco. They believe that the female orgasm studied not sufficiently. So they created a simulator for studying. Also, they conducted a huge number of experiments and wrote a very popular book in America. I was working on the prototype of the simulator, and later I was involved in shooting and post-production.

The office of the company was in one block from Folsom Street, this is the famous street in San Francisco, where is the yearly BDSM fest. And we got to a local cafe and showed our simulator to the pierced guys in leather





and with whips in the hands. They said: "yup ... just a bare woman, beautiful, but ... ". Nothing strange but on the "normal" streets of San Francisco, the simulator had quite a lot of success.

The project was funded by big US companies and received \$ 4.5M for development in the first year. Emma Watson supported this project in her interviews and it still works. But really it was a very uncommon project.

My second great project, of course, is the cartoon "Nosferatu". It was shown in all cinemas of Russia, we received a prize at the international festival "Window to Europe". But imagine how in St. Petersburg, without money, special equipment, four people, within six months made a full-length animation. Now it's impossible. It was a feat.

YOU HAVE A HUGE EXPERIENCE OF WORK IN THE RUSSIAN CG SEGMENT AND IN THE AMERICAN, TELL US ABOUT THE INDUSTRY HERE AND THERE, HOW DIFFERENT THE PROCESSES ARE AND THEIR IMPLEMENTATION, WHERE YOU FEEL MORE COMFORTABLE TO WORK, TELL US ABOUT THE BUSINESS RELATIONS BETWEEN MANAGERS AND THE EMPLOYEE. ALSO WHAT ABOUT FAILED DEADLINES? LET'S LEAVE THE FINANCIAL QUESTIONS CAUSE IT'S CLEAR THAT IT'S PRETTY GOOD IN THE US.

There is a limited 'freedom of action' for the artists in the US. I mean that there everything is highly specialized. And of course, the work process is different. There are art unions in the United States, so movies are made by freelancers.

R The backbone of ILM is a few dozen employees, and all the rest are recruited for a particular movie. Every time new employees for the main production. So you work for six months, do your best but never know if the company will extend the contract for the next film. In this the big difference from Russia. Because Russian Studios usually have a permanent team where the same people do all the incoming work.

With regard to the fails to meet a deadline, then there is one interesting thingy about the American companies. If you feel the deadline might be broken, then this should be planned. I mean if you say a specialist does not meet the deadline because of a reason, then he won't be charged for that. And if you see the problem in advance you'll be even rewarded. It means a specialist can make a mistake with the deadline for completing the task and suddenly discover hidden troubles which cannot be concealed and solved secretly without giving a mind, opposite, it needs to inform the supervisor about it. In the US, everyone is intended to solve the problem - if it's a bottleneck somewhere, then let's think together about how to expand it. But in Russia people will decide for a long time whom to blame on, why you can not do something faster, why the task is so complex and why don't you do the same with a stick and rope.

YOU HAVE AN OPEN CONTRACT IN HOLLYWOOD WITH THE MUSTACHE AGENCY (NY) WHICH IS A CREATIVE AGENCY WITH A FULL CYCLE OF PRODUCTION, IS THERE ANY DIFFERENCE IN WORKFLOW IN COMPARISON WITH THE SIMILAR STUDIOS IN RUSSIA?

I have no open contract in Hollywood. But I work(remotely) at Mustache Agency based in New York since 2015. I also have an agreement called a Deal Memo which is a letter of intent to hire me for a project in October, 2018 at Crafty Apes. This is a large post-production company in which I will be engaged for the second season of StarTrek and some other new show on CBS.

In the US, production studios are preparing for the project for six months in advance. In Russia - for a month. Often work can be offered when a deadline has passed. So actually it was yesterday, but the budget has gone and now it needs the number of people to quickly finish all the work. In America, HR policy depends on the task, and in Russia on the budget. So here everything is very different.



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HOW DIFFERENT ARE THE CONTRACT FEATURES FOR THE WEST POST-PRODUCTION HOUSES? WHAT HIDDEN STONES MIGHT EXIST FOR THE EMPLOYEE AND WHAT HE SHOULD PAY ATTENTION TO?

As for the contracts, everything is standard there: a person does his duties during a project for a rate. But money gets paid in a really specific way. There is, so-called, the Payroll system. When you get in it, the money is transferred automatically from the employer's account. The same day weekly or monthly without a delay. So you cannot be told

we're sorry, there is no money, so you will not get a pay. In this the fundamental difference. In the US, the money will be paid in any case. The maximum delay for a freelance contract depends on the company's policy, for example, net 10, net 15, net 30, net 60. Numbers show how many days the work will be paid. Most companies are very punctual. And this is the result of the activity of the trade unions.

It's also very strange to see when new employees come to the project and behave very openly, friendly as if we have worked together for many years. And someday a person disappears.

And you realized that he had a contract just for a month. And it's sad a bit. It's hard to make friends at work in America.

There was a case. FGSake (For Goodness Sake) hired an excellent designer from Spain for a month. His rate was \$600 dollars per day. A good money. Later this designer worked for Apple and was involved in some

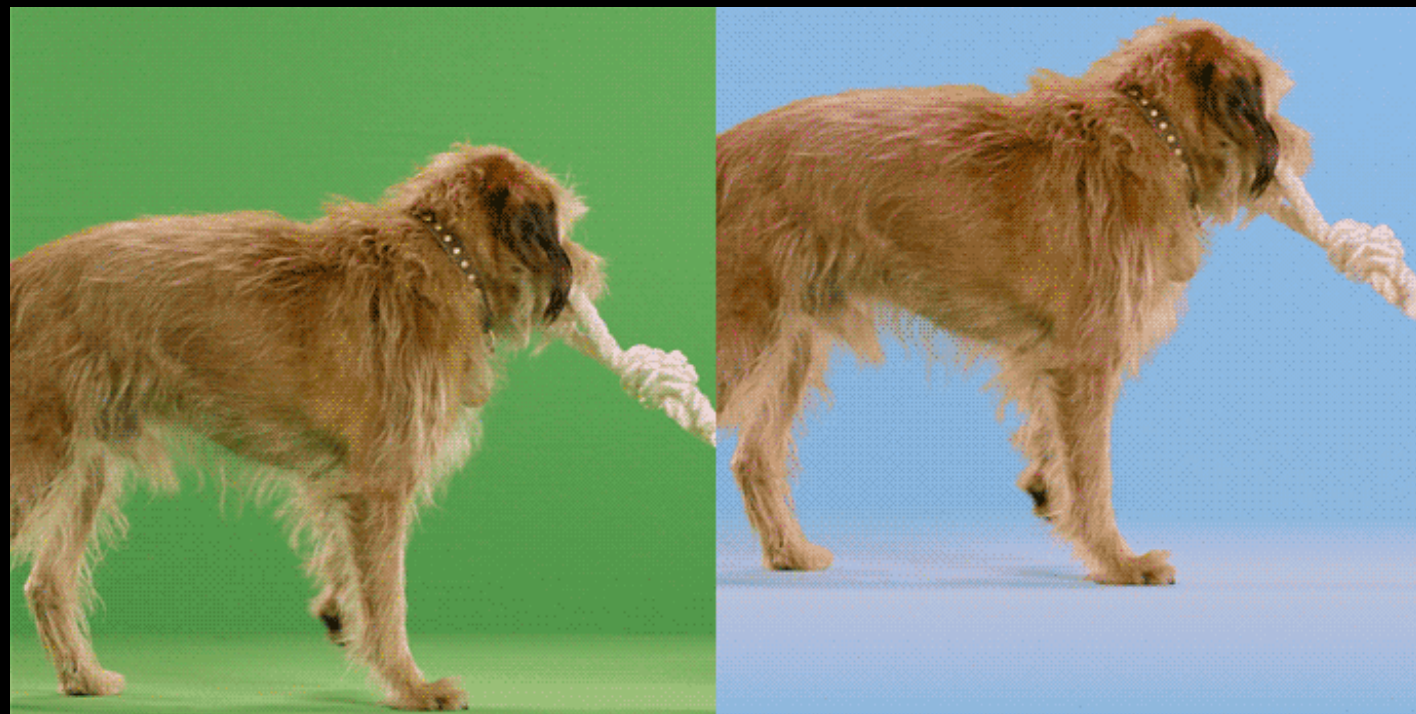




interesting projects of this company. So he worked 10 to 12 hours a day. He was hired, as like as any other artist, for his personality. And squeezed dry! I even felt sorry for him. Therefore, if you are a good artist and have a feature, you should be ready for a high salary in the United States and a lot of work and you will leave your all the most valuable skills that were accumulated for many years of your work.

About the hidden stones. Where you should be careful.

Once, I had a case. It was in the company Frog Design. As I came very early and was sitting in a big swing right in the center of the office hanged from the ceiling, right in the center of the office. I was waiting for the morning briefing when my supervisor came up to me and asked what I think about the just finished project. I decided to be honest and said: "Listen, everything is fine, but it looks kinda like a school work, in my opinion, we went too far with color, something is not right here, nothing bad in general, but nothing special as well. He smiled, said: "Okay ...". But in fact, it was my big mistake. Later, the guys I worked with told me the supervisor, of course, shared this story with them, so they told me in the smoking room that I need to be very careful in my statements. In America, the author, who put his whole soul into the project, do not quite tolerate criticism. Therefore, you must be careful in expressing your opinion. Better to flatter or admire everything that you are shown. If it is not possible to correct something, then better to say that everything is fine. In America, it is common to praise. So that time I was on the edge of firing.



WHAT COULD YOU RECOMMEND THE ARTISTS THINKING ABOUT WORK ABROAD, WHAT BE READY TO DO? WHAT TO PAY ATTENTION?

I think it would be interesting to look at the tests I did to get a job.

I wanted a position at the Machine Zone. This is a big gaming company in San Francisco. I was given the following task: "Create a 10 second animated video of a soldier walking into a dimly lit room, grabbing a cup of coffee and watching TV in a creative way. You must model, texture, rig and light the entire scene. We are also looking at camera work including shots that work cohesively together. You have 4 days to complete this test. Please provide all source files when submitting your test"

So you must be able to animate, texture, model, write a story, edit and God knows what else. The test will be evaluated completely, though the position, you are applying for, is called CG Animator. And this is the usual task in the studio, which deals with games.

Another test I did was at Microsoft in the department that's developing the game Minecraft. They say to download any character, make a new texture, create some unusual image, make some environment for him. And make it so that the character corresponds to the general style, but would be presented as an exhibition object. To do this, you need to light it up, render using Maya Mental Ray in high quality and send the result as a picture. And you need to do it in one day.

R Despite on the fact that this is a test for a position of the artist, you must demonstrate the design skills and ability to work with lighting a composition, 3D modeling, meaning the knowledge of Maya and the final render. It is clear that a person can do something good and something bad. But the evaluation will be comprehensive, and a good art school on your background may not help. Although in the end, you can get a job just because you demonstrated yourself as a very good artist or a very good animator. This is normal. But it's better to be prepared you can be asked to do more than you learned so far.

In addition to that what you need to be a good specialist in your field, even if you are trying to get a position of an artist or a programmer, you need to 'be nice'. You should look good, should smile, should be charming. Because Americans really care about how you join the team. For them it is important. Before the interview, the secretary will give you a tablet with an electronic questionnaire. Having filled which, you can be asked to take a picture. And they expect you look nice.



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MANY PEOPLE INTERESTING WHAT LEVEL OF ENGLISH THE ARTIST SHOULD HAVE TO FEEL COMFORTABLE AT WORK, IS IT ENOUGH JUST COMMON SPEAKING SKILLS? HOW MUCH TIME YOU SPENT TO LEARN ENGLISH? WAS IT A SELF-EDUCATION OR WITH A TUTOR?

Mostly it was a self-education and I've taken a private tutor here in St. Petersburg but only half a year. But before I left for America, I had much of emailing with different companies and that also helped.

If you want to speak, you need to speak! And in the US it is very important to learn a conversation "about nothing". For me, it was quite difficult. This is a special skill. You should be able to talk about the weather, about politics, about all sorts of nonsense without giving it any importance. At the same time, joke and smile. And such conversations have an algorithm incomprehensible for Russians. But if you do not know how to talk about "nothing", you will look very strange. People will avoid your company. Americans are taught to write essays from childhood. You should be able to construct a beautiful conversation so there are the introduction, the body part, and the concluding paragraph. So the conversation "about anything" is an essay.

After I came back from the USA and speaking fluent English, I failed the IELTS test, in Russia. Here they teach you how to pass the test, not English. So if you want to speak English, just speak with native people.

There is a huge number of people in the US who do not speak English at all. It's not only Russians but could be Chinese or Indians. When we first time came to America, my wife went to English school for pensioners and housewives. They were not needed a good language for twenty years. But if you're a team leader or supervisor, then you can not work without a good knowledge of English. For example, the startup company Invention Engine, where I worked as a chief of the graphics department, provided me with a private English tutor an hour before work. So after a year I spoke fluently.

WE KNOW THAT AT THIS TIME YOUR PROFESSIONAL INTEREST IS FOCUSED ON THE SOFTWARE FOR CG ARTISTS AND ANIMATORS, WHAT IS THE MAIN PROBLEM YOU ALLOCATE FOR YOURSELF?

There are two types of VFX artists. Some came from Baumanka or Polytekhn(Bauman Moscow State Technical University and Petersburg Polytechnic University) , and the other came from Mukha and Repa(Saint Petersburg Art Academy and Repin Institute of Arts). If the first is well versed in the technological part, but sometimes they do not completely know what the result should be, then the other perfectly represent it, but they will understand the software interface for a long time. Therefore, the beauty in the movies has made by technicians. This is the main problem.

You see, when a programmer makes some uncomfortable interface, for example, a button to close the window is on the left, and not on the right, as everyone is used to. This means that a designer has drawn this. And now the programmer needs to make it real. Those the designer may not understand the structure and significance of the interface, he did not study the basic principles of object-oriented programming: encapsulation, polymorphism, and inheritance. So he placed the button at the left because his task is to highlight himself - he does kinda



special design. And at the same time, the goal of the programmer is to embody any fun of the designer. In case of a button at the left, he can't use a standard function Windows but should write its own function, in which the button in the other place. He can complete such a task. But he doesn't ask why? Apparently, programmers should learn a base of the interface design, and the artists should learn a base of object-oriented programming. They must have cross disciplines.

THE PROBLEM, IF GRAPHIC SOFTWARE BY PROGRAMMERS WITHOUT AN ART EDUCATION IS NOT EFFECTIVE FOR USING BY ARTISTS AND INTUITIVE FOR ONE PEOPLE THINGS ARE NOT SUCH CLEAR FOR OTHERS, THEN WHAT SOLUTION YOU SEE? I DON'T KNOW ANYTHING BETTER THEN A CONSULTATION THE ARTISTS AND ANIMATORS IN ALL STEPS OF DEVELOPMENT, PARTICULARLY THE SOFTWARE INTERFACE.

Let's say the software that deals with computer graphics and animation is still under-invented. At the moment it's level is still very low.

Because developing a character and its animation, we use polygons, points, we make its shape directly, describe the movement with the mathematical language. But I think it's wrong. There must be another principle. Everything should be done first as libraries with a large amount of information, and secondly, it should be implemented as tags. The same as we search for the information in

R limited group of persons. Like fashion designers which make clothes and conduct a show with some incredible hats and pants. There should be a small group of people who are engaged in dots and polygons or creating some kind of mathematical, complex effects. And for most users, the art creation should be much easier. Then we do not have to educate specialists in universities. This should be affordable and universal. That's why I believe that the software is under-invented yet.

YOU WILL SPEAK ON THE NEAREST CG EVENT IN ST. PETERSBURG, TELL US WHAT TOPICS YOU'LL BRING UP IN YOUR SPEECH?

My participation in the CG Event has not been confirmed yet. Using samples from the animated film "Nosferatu. The horror of the Night ", I planned to touch up the topic of software development, which is very slowly changing and not adapted for use by artists.

HOW DO YOU SEE THE FUTURE OF CG IN THE WORLD IN THE NEAREST 5 YEARS? WHAT PROBLEMS YOU'D POINT AT THE MOMENT? APPARENTLY, THIS IS THE LOWER COST OF COMPUTER GRAPHICS BECAUSE OF GROWING CHINESE AND INDIAN POST-PRODUCTION COMPANIES. ANYTHING ELSE?

I believe nothing will change until we find a new way to create 3D graphics and animation, which is



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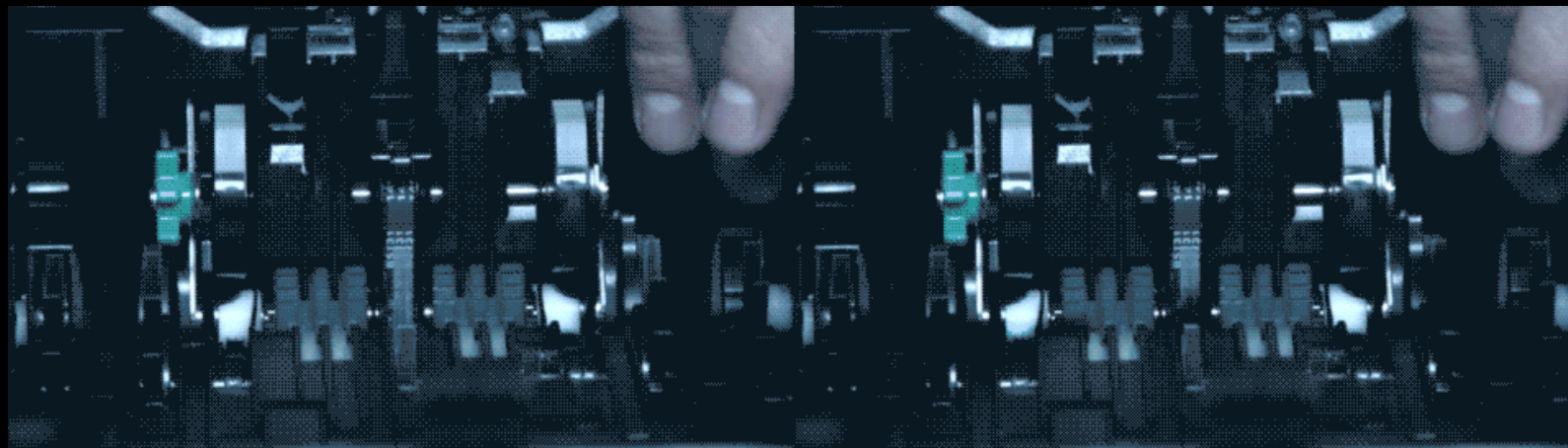
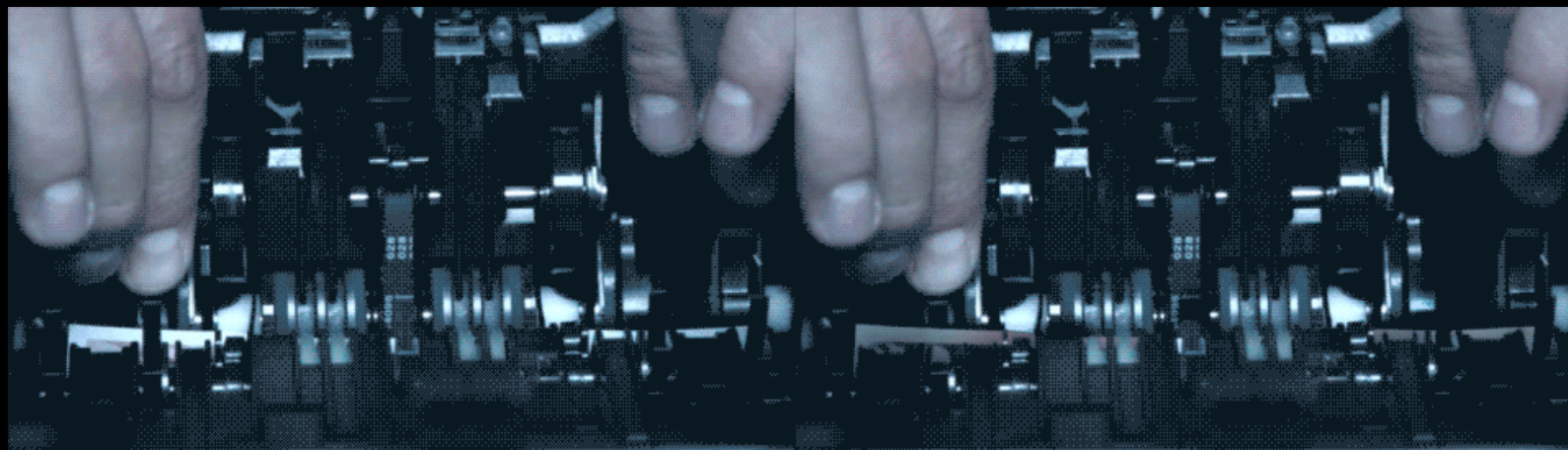
A COMMON QUESTION, WHAT DO YOU DO AFTER WORK? SO VERSATILE MAN MUST HAVE SOME INTERESTED HOBBIES? :-)

Indeed, I play music, I make arrangements for different folk songs. This allows me to switch yourself, out of the monitor, a bit relax my eyes and start working with other organs of perception like ears -).

I have friends who write songs, and I do arrangements for them. This echoes of my past, when I was an active musician, sang in the choir, played in a rock band. I like to play guitar, piano, work with sound effects, with mixing and mastering. In the end, it supports my work in computer graphics, especially when I work with music clips.

I like to travel. In America, we get in the car and drive not scheduling an exact route. We traveled from San Francisco to the Grand Canyon, but on the path, we must have something to see - the Hoover Dam, Las Vegas, the Colorado River ...

I like to walk around the parks in St. Petersburg. Take off my glasses and just look at the live nature, walk among the pines, listen to the birds. My children are adult. And I would like to give away to other people the bits of knowledge accumulated over 20 years. I'm a good team leader. I'm not very sympathetic to the idea of exploitation human by human, so I'm not trying to develop my own business in the field of the visual effects, but I like to grow a team. I bring my knowledge in order to work in the environment of professionals of extra-class.



PAVEL, THANK YOU VERY MUCH FOR THE PERFECT TIME, THIS WAS ONE OF THE MOST INTERESTING INTERVIEWS, AT LEAST PERSONALLY FOR ME. EDITORS RENDER.RU WISHES YOU SUCCESSES IN ALL YOUR PROJECTS AND I HOPE WE WILL MEET AGAIN IN THE FUTURE.

